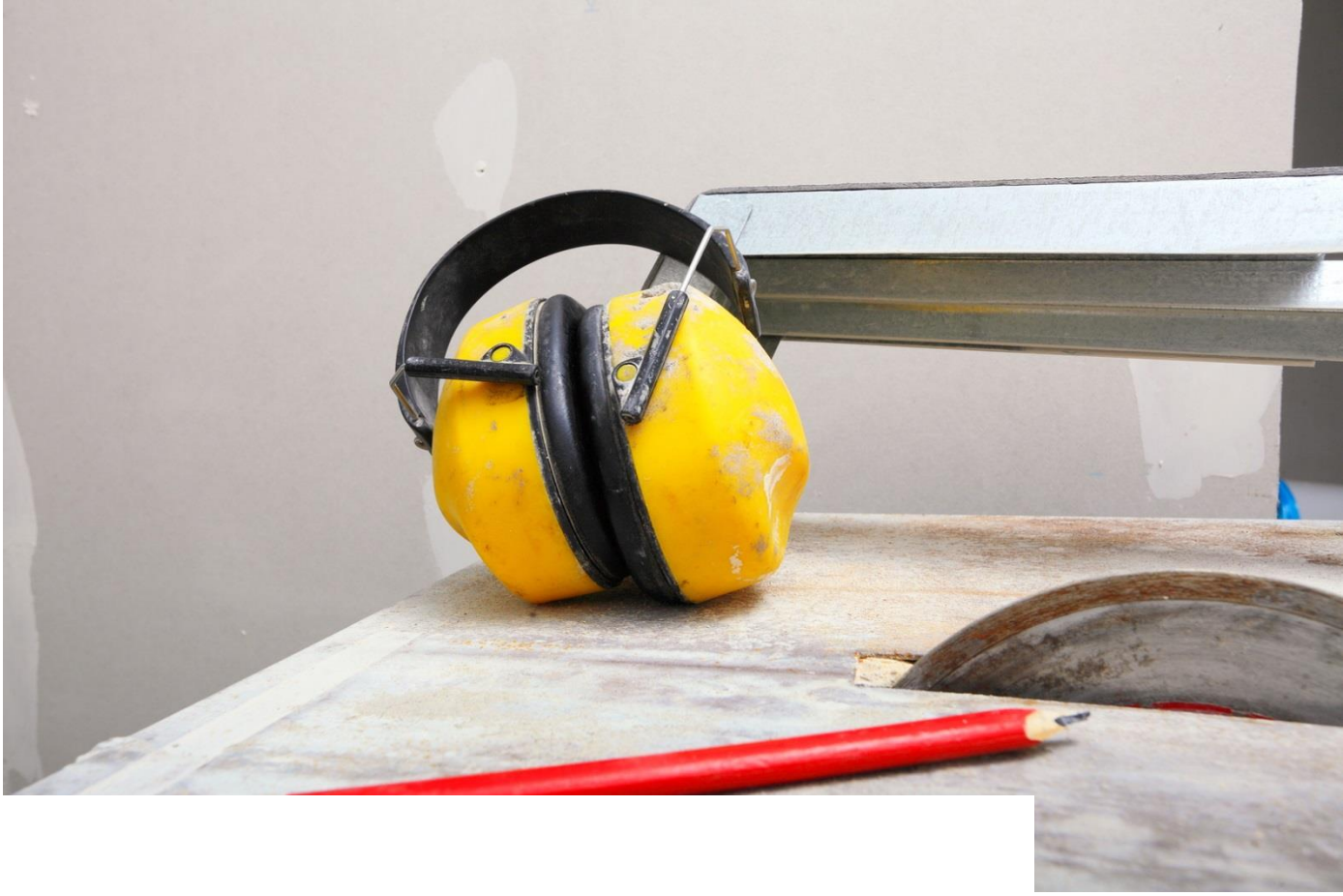

Health and Safety
Incident and Near Miss Reporting

British Glass

Executive Summary

This guidance aims to introduce the concept of near misses, provide assistance to organisations looking to implement a reporting system into their workplaces, clarify understanding of different types of incidents and raise awareness of the benefits and value of appropriate reporting systems – in turn contributing to the continuous improvement of health and safety performance across all organisations.

The development of this guidance was completed by a working group of the British Glass Health and Safety Steering Group. This group was established in response to concerns about a lack of understanding about 'near misses' and how to monitor and act upon these events raised both within the glass industry and across business in general by the Health and Safety Executive (HSE) C3HARGE committee.

Information is provided for employees, in terms of understanding what a near miss is and the benefits of reporting it, and for employers, with respect to implementing a basic system, encouraging reporting, managing reports received and calculating estimates for the number of reports to be expected, assessing and prioritising issues and communicating outcomes to staff.

Further sources of information and guidance are highlighted for those wishing to learn more or requiring additional guidance.

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Introduction

Incident and Near Miss Reporting – they really are the same thing - is one of the most useful tools any company can use to enhance safety. Not only does it provide warning of potential problems before they become reality, but also it actively encourages everyone to take part in the safety management process. By teaching people the advantages of incident reporting they gain a much better understanding of the risks involved in the job and how to reduce them. They can also see how valuable their own ideas and thoughts are.

It is essential that any event or situation that resulted in, or had the potential to cause, injury, property damage or ill-health is reported to enable a company to investigate and implement improvements to prevent future incidents, injuries or other costs to the business or its staff.

Individuals sometimes fear that by reporting what may appear to be minor issues they will be thought either to be wasting time or to be making safety seem too trivial. An understanding of the value of incident reporting can quickly displace those fears.

Educating both supervisory and wider staff about the benefits of monitoring incidents, including learning how to actually use this information - in reality to manage it - enables supervisors to make better-informed decisions about what really is important, improve their understanding of risk and allows everyone to understand why decisions are made - and, hopefully, buy-into and contribute further to the process.

Established accident ratio theories and studies, such as those of Bird and Heinrich, have demonstrated that there are consistent relationships between the number of near misses, minor incidents and more severe injuries that occur on sites – **the only difference is a matter of luck!**

Understanding the theory behind incident reporting is one of the best lessons anyone can learn. It really is not very complicated, but in some ways that is the problem. How can something so simple be so useful? The most difficult aspect is understanding how the ideas of 'potential severity' and likelihood actually work in the real world and implementing them effectively. What is most important is to make the reporting process itself as simple and straightforward as possible. Everyone is busy these days and trying to do the best they can with too little time. If we make reporting difficult it just won't happen and then we all lose.

This guide is intended to give you some insight into the process of setting up and using an incident reporting system, while also providing general information for all employees about near misses, incidents and the benefits of reporting. It is not a recipe to be followed in minute detail, but gives advice as to the dos and don'ts. We hope that you find this a useful staring point if you are just setting up a system or a useful benchmark against which to judge your existing system. As always if you have any questions contact British Glass and we will try and answer your queries.

Definitions

There is often confusion around key terms and concepts used in health and safety, so basic definitions are included below, these terms will be used throughout this introductory guidance. It is important to note that individual companies may adopt their own terminologies, e.g. “Near Hit” as opposed to “Near Miss” or the classification of different incident types.

Unsafe Condition: any situation that could result in injury or damage to people, property or equipment. This is a proactive, preventative, indicator of health and safety issues and examples could include: a dangerous item left as an obstruction or a confusing or misleading procedure/works instruction.

Unsafe Act: any act or omission by an individual that poses a risk of injury or damage, such as breaching a safety procedure, or the failure to act upon an unsafe condition. Examples may include: not reporting an unsafe condition and leaving a hazard for someone else, the failure to follow health and safety procedures or failure to wear the specified PPE**.**

Near Miss: any event, including an unsafe act, that could have resulted in injury or ill-health but through good luck, timing or location did not cause an injury or damage property.

Incident: any event with the potential to cause, or actually resulting in, injury or damage to a person, property or equipment. Incidents are further classified to indicate severity and nature. Some standard classifications are included below::

- **Near Miss Incident;** (as above)
- **Minor Injury Incident;** resulting in a minor injury, e.g. requiring first aid.
- **Property Damage Incident;** resulting in damage to equipment or property.

Lost Time Incident (LTI); resulting in the individual being unable to attend their next shift. The severity of an LTI can range from relatively minor to major injuries.

Hazard: any item, act or process that has the potential to cause injury or damage a person, property or equipment.

Likelihood: the real-world chance that any given hazard will result in damage or injury.

Severity: the consequence associated with the injury or damage (potential or realised) – e.g. from a minor graze injury to a serious injury such as amputation or fire.

Risk: a combination of the likelihood that a hazard will cause harm, injury or damage and the severity of that harm should it occur. Often companies will keep this simple, e.g. Low, Medium or High.

Key Safety Messages

- **The only difference between a near miss and injury can be a matter of luck!**
- **Near misses are early indicators of where more-serious injuries are likely to occur!**
- **The reporting of near misses, unsafe acts and unsafe conditions saves lives and reduces injuries!**
- **Only by reporting issues can management be aware of them – and act accordingly to remove the hazard, repair equipment, improve processes or otherwise control risks!**
- **Individuals will not be punished, or otherwise penalised, for highlighting issues.**
- **Remember – if you don't report an issue, it could be you or a friend that is injured next time!**
- **Remember – good health and safety is good for business – the prevention of injuries or property damage means reduced costs for the business and a healthier bottom-line.**

Why Should I Report Near Misses?

The value of reporting near misses must not be underestimated - they act as essential indicators for where more serious injuries are likely to take place.

The reporting of near misses, unsafe acts and unsafe conditions saves lives and reduces injuries! Once a hazard is known, steps can be taken to remove the hazard or implement measures to reduce the risk posed by it.

Established accident ratio theories and studies, such as those of Bird and Heinrich, have demonstrated that there are consistent relationships between the number of near misses, minor incidents and more severe injuries that occur on sites – **the only difference is a matter of luck!**

Take the following example:

> A walkway has a glass trolley storage area adjoined to it. The trolley is used as a temporary store of glass product. The trolley, when not placed correctly, overhangs the walkway and causes a partial obstruction (an **unsafe condition**), which poses a hazard to passers-by.

A number of scenarios can take place:

- An operator notices the trolley and that it is overhanging the walkway, does nothing and carries on his duties. The operator spotted the **unsafe condition** but does not report it.

- A colleague walks down the same walkway, but catches their sleeve on the protruding glass. He suffers no injury and no property has been damaged.
  This is a **near miss and should be reported**.

- A friend catches the glass, but strikes it with sufficient force that the glass shatters. **Luckily**, he remains uninjured. This is a **property damage incident**, resulting in cost to the business.

- An operator catches the glass – it fractures and cuts his arm. This injury could potentially be fatal, if the glass slices a major blood vessel, or minor, if the operator is lucky enough to only receive a minor cut. This is a **minor or lost time injury incident**.

The resulting incidents were 100% preventable - if the original unsafe condition or near miss was reported allowing for the hazard to be removed or the risk reduced.

There are a whole range of possible outcomes here – the glass could fall/shatter and the severity of the injury could vary from remaining unharmed to a fatality - **the only difference between each outcome is a matter of luck, timing or circumstance**.

In all cases the situation should be reported in order to prevent the same event happening again.

Only once the health and safety management, or relevant area supervisors, are aware of the presence of a hazard can they resolve, repair or find control measures to minimise the risk posed to other staff, contractors or visitors.

Once this is a known risk then suitable remedial actions can be taken, such as:

1. If the current area is the most suitable storage area, then it should be made clear that the trolley should be pushed back to ensure the walkway is clear of any obstruction – posed by the trolley or its contents.
2. A suitable storage area may be required for the trolley.
3. A designated area could be painted (or repainted).
4. A bump installed so that when the trolley is pushed back to the correct location some tangible feedback is felt by the individual.
5. Some training/instruction/awareness-raising provided to staff so that they understand the correct means of storage.

Managing Near Misses

The first challenge for an organisation embarking on the implementation of near miss reporting is the establishment of the system itself and the mechanism(s) for staff to make reports. However, once this is in place there can be a number of hurdles or typical problems that organisations or health and safety professionals face:

- Encouraging reporting – receiving too few reports;
- Coping with and prioritising a high volume of reports;
- Knowing how to record and act on the reports submitted;
- Ensuring that staff receive feedback – and, importantly, see value from their efforts in reporting issues;
- Explaining why a near miss may not have been dealt with, when others have.

The following sections provide some introductory guidance, tips and advice for implementing a system and dealing with some of these challenges.

Implementing a Simple Reporting System

To encourage people to report any type of incident, whether it be a near miss, unsafe condition or otherwise, the method for them to make a report must **as simple and easy as possible** - in terms of availability (accessibility), platform and capability.

For example an IT-based system may be great for recording data centrally, BUT is it accessible easily in a production environment – is it quick and simple to use? A machine operative is unlikely to have ease of access to an interface – and if he/she does, how long would it take for them to log-in, load up the form, complete it and submit the report? However, for an office-based member of staff this may in fact be the quickest and easiest method.

Paper based forms, available in multiple convenient/accessible locations, should be clear and simple – do not overcomplicate the form or ask too many questions. Together with accessible forms a convenient post-box or drop-off for the report should also be available.

Even reports by text message or email could be considered – depending on the nature of the workforce and whether the company could accommodate this. The most important thing is that reports are made and that staff understand what needs to be reported.

In order to deal with the reports received the health and safety management should establish a suitable system to record the reports - ideally allowing quick identification of similar events, filtering and sorting to identify high priority items and other important aspects of a report such as location and equipment and to allow the generation of key measures and performance indicators.

This may take the form of a simple spreadsheet with separate fields for key information or could be an extensive database.

An example of a basic form is included below.

Example of a basic form:

Name:	Joe Bloggs	**Date / Time**	05/12/14 10:24
Location and Equipment Involved:	Line A1 Machine 7 / 8 walkway Swab Station	**Nature of Event:**	☐ Unsafe Condition ☒ Near Miss ☐ Injury
Brief Description:	Nearly slipped on lubricant spill on main walkway between machines 7 +8. Note – the drum access is difficult and requires awkward lift/tipping to refill - resulting in regular spills.		

Note: This is a basic example only and should reflect the needs of your own management system – a combined accident, incident, near miss and hazard/unsafe condition report may suit some locations, whereas others may prefer a separate near miss/unsafe condition form.

How do we encourage reporting?

It is essential that all staff understand both HOW and WHY they should report near misses. This guide includes examples of near misses as well as explaining the benefit of recording them. Examples of both helpful and unhelpful reports could be explained to all staff.

Explain the benefit of reporting – see both the '

Why Should I Report Near Misses?' and '*Key* Safety Messages

' sections for further information that could be used for this.

It must be made clear to staff that they will not be held accountable, or be otherwise penalised, for identifying and reporting any near miss, unsafe condition or any other incident (including their own

omissions or acts) – the purpose of this process is to resolve issues and improve the health and safety performance of the organisation.

The mechanism to report incidents should be made **as simple as possible**. In order to assess the near miss the H&S team need to know simply the location and nature of the hazard – from this basic information an initial assessment and any subsequent investigation can obtain further detail.

Incentives can also be considered – but the potential disadvantages must be weighed up against the benefits of increased reporting, which is best done with an understanding of the culture of the staff and their existing engagement with and knowledge about the health and safety process. Careful consideration of these may indicate whether the incentive is likely to engage staff and bare useful results or result in large numbers of, but unhelpful, reports being submitted. Before any incentive or personal objectives being implemented it is advisable to consult with any union representation within the organisation.

- Setting Targets for Reporting could be linked to an individual's personal objectives and their performance review or be taken into account when calculating any bonuses that the company issues – whether at individual, team or site-wide level. Any such system must be communicated and made clear to all staff well in advance and should be implemented with the cooperation of the company's Human Resources provision.
- Alternatively, a looser system of reward might be considered to encourage submissions. Examples include a smaller award/bonus/perk being issued for "the most beneficial" or "greatest hazard identified" near miss report submitted – this could be each month or quarter for example. A larger annual award could also be considered to recognise the most effective report made each year. The merit of the submission could be based upon the greatest risk identified, the most significant improvement made, the effect upon incident rate or other similar considerations and could be chosen by the H&S committee, senior management or another suitable group within an organisation. Such a system may dissuade those 'less than helpful' reports being made, whilst softly encouraging all staff to become involved.

What should we do with the reported information?

All reports should be recorded in a suitable system, such as a spreadsheet or database as described earlier (see: '*Implementing a Simple Reporting System*' section) together with an indication of the status of the report – i.e. whether it has had an initial assessment, described in the section, '

How do we manage so many reports?', or been fully investigated.

These records should be updated as the report progresses through being assessed and investigated, together with a record of the assessed risk, the equipment, processes or locations involved and any other pertinent information. All of these details will allow the health and safety management to investigate any trends occurring, better inform future risk assessment, incident investigations and generate useful key performance indicators to help them report to both management and staff.

How many near misses should we expect?

It is impossible to embark on near miss reporting and know exactly how many events you should expect. However, by using established incident ratios such as that of Heinrich (1931) and Bird (1969), some simple estimates can be made based upon known numbers of minor and more serious injuries from a company's accident book or database.

The Bird accident ratio suggests that for every lost time injury (LTI) there will be 10 minor injuries, 30 property damage events and 600 near miss occurrences.

This is not an exact science, but the studies of Bird, Heinrich and others, do highlight that by collecting intelligence about the more frequent events (near miss and minor events) an organisation can identify those areas, equipment or processes that are likely to lead to more serious injuries in the future – allowing them to make improvements and prevent serious injury or even death.

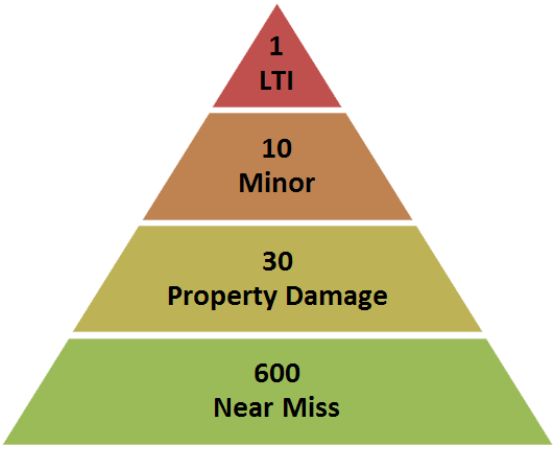

Figure 1: Bird Incident Ratios (1969)

1 Serious/Lost Time Injury (LTI)
10 Minor Incidents (first-aid)
30 Damage to Property Incident
600 Near Miss/No Injury Incidents

It is estimated that for every lost time injury, resulting in an employee being unable to attend their next shift, there are typically over 600 near misses occurring.

Similarly, for every minor injury there are over 60 estimated near misses.

Reviewing your accident records should allow you to make some basic estimates:

> Multiply your annual number of lost time injuries by 600, or the number of minor injuries by 60, to give an estimate of the number of near misses you might expect.

Worked Glass Industry Example:

> A company employing 202 staff experienced 3 lost time injuries in the previous 12 month period. This suggests that roughly 1,800 near misses would have occurred in the same

period. Dividing this estimate by their number of employees gives an average of 9 near misses per employee.

On the above basis you could decide to set a target for each employee to report 3 or 4 near misses over the coming year. Realistically, introducing a new system and expecting all employees to report the 8 or 9 estimated near misses is not likely to occur – and even if you fall short of the set target, e.g. only receiving 2 reports per employee, this would still be a substantial volume of reports (between 404 and 1,818) – giving valuable intelligence data that you would not have previously known.

How do we manage so many reports?

Not all near misses are as serious as others – you should agree a method of prioritising these reports in order to allocate investigative resources appropriately and ensure that the reports can be quickly assessed.

One method of prioritising is the "Potential Severity" method, which involves a quick initial assessment of the potential of the event to have caused serious injury or damage and the likelihood that this event will occur.

Both the potential severity of a resulting injury and the likelihood of that event occurring is considered in order to prioritise both the timescale and the resource that should be spent (time/effort/money) investigating and resolving the issue.

A simple matrix can be used to illustrate the decision:

LIKELIHOOD OF RECURRENCE	**POTENTIAL SEVERITY**			
	Minor Injury e.g. First Aid	**Significant Injury** e.g. Medical Treatment	**Major Injury** e.g. Hospitalisation	**Fatality**
Remote *('Rare' or 'Unlikely')*	**Minimal**	**Low**	**Medium**	**High**
Low *('Possible')*	**Low**	**Medium**	**High**	**High**
Medium *('Likely')*	**Low**	**Medium**	**High**	**High**
High *('Will Happen' or 'Certain')*	**Low**	**Medium**	**High**	**High**

The user should consider the possible consequences of the scenario presented by the report. Taking the earlier example of the trolley this could range from zero harm to a fatality – for example, if the trolley was knocked the glass might fall upon either the individual or a colleague, or fracture and cause a serious or fatal cut. Then, consider what the likelihood of these events may be.

Incident records should also be used in order to further inform this process – and in the glass industry it is well known that cuts from glass, slips, trips and falls and stepping-on/striking-against incidents account for a substantial proportion of all industry incidents (collectively 44% of all incidents). Therefore it is already known that the trolley example fits the profile of the type of incident causing real injury in the industry.

Factors such as the volume of traffic using the walkway, the weight of the glass typically stored on the trolley, the trolley's frequency of use, its stability and any prior incidents should all be used to assess the likelihood of recurrence and the potential severity of a realised injury incident.

A quick initial assessment in order to rank the reports as "High", "Medium", "Low" or "Minimal" can allow resources to be devoted to those areas of greatest concern first.

Earlier or subsequent reports of a similar nature may indicate that the assessment needs reviewing and its priority raising.

Communicating and Giving Feedback to Staff

In order to engage with staff and encourage ongoing reporting it is essential that those reporting incidents receive feedback.

In some cases, where changes are implemented as a result of a report, it will be visibly obvious to staff that the reporting has had an effect – however, many reports may lead to less obvious changes.

In many cases, where reports have identified a lower priority issue, then it may be some time before any changes are made.

It is therefore important that staff receive feedback on the types of issues being highlighted and the actions that have been taken as a result of the reporting. There are a variety of methods that could be adopted to achieve this goal, which could include:

- Including headline figures of the number of reports received each month in a monthly company bulletin, newsletter, meeting or noticeboard – together with the assessed priority of these (e.g. "30 Near Misses Reported this month - 5 High, 5 Medium and 20 Low Priority").
- Similarly, report on the actions arising from the investigations of these – if changes are required to plant, equipment or processes then highlight what will be changing. If an action

is that further training or awareness raising is needed, use these vehicles to highlight this – such as a safety alert being issued or key Safety Messages being included.

- If there are a number of issues raised upon which no action will be taken it may be useful to report back to staff why no action will be taken. It may be that more data is required, the assessment/investigation identified that there was a minimal risk posed, other changes are due to come into effect that will result in the removal of the hazard – e.g. a refit, change of layout or replacement of equipment.

Further Information and Resources

- **Health and Safety Executive RIDDOR Information Website, www.hse.gov.uk/riddor**
- **'*Reporting accidents and incidents at work: A brief guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)*',** Health and Safety Executive, www.hse.gov.uk/pubns/indg453.htm
- ***'Investigating accidents and incidents: A workbook for employers, unions, safety representatives and safety professionals'*,** Health and Safety Executive, http://www.hse.gov.uk/pubns/hsg245.pdf
- ***'The health and safety toolbox: How to control risks at work'* website,** Health and Safety Executive, www.hse.gov.uk/toolbox/index.htm